

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A reactor for filtering water comprising:
 - (a) one or more modules of filtering membranes located within a tank;
 - (b) a source of transmembrane pressure to the membranes for withdrawing a permeate from the insides of the immersed membranes;
 - (c) an aeration system operable to supply bubbles to the tank to inhibit fouling of the membranes;
 - (d) a feed inlet for introducing feed water to the tank;
 - (e) a retentate outlet for removing retentate from the tank;
 - (f) a gas recirculation system to collect one or more gases liberated from feed water in the tank and return the collected gases to the aeration system, the gas circulation system having an inlet from the atmosphere and an exhaust to the atmosphere.
2. (Currently Amended) The reactor of claim 1 wherein the gas recirculation system includes a lid closely fitted to the tank so as to collect gases liberated from substantially the entire surface area of the feed water in the tank but the tank remains open to atmospheric pressure in communication with the atmosphere through a space between the lid and the tank and the transmembrane pressure is provided by applying a suction to the modules.
3. (Currently Amended) The reactor of claim 1 wherein the lid is substantially sealed to the tank to prevent the flow of gases to or from the atmosphere between the lid and the tank.

4. (Original) The reactor of claim 1 wherein the aeration system further comprises a blower and a gas dryer wherein the gas dryer is operable to dry the collected gases before the collected gases are returned to the blower of the aeration system.

5. (Currently Amended) The reactor of claim 1 wherein the ~~gas circulation system includes an inlet and/or an exhaust to the atmosphere to permit the percentage of liberated gases which are collected to be varied.~~

6. (Previously Presented) The reactor of claim 1 wherein the aeration system liberates carbon dioxide from water in the tank to an area above the water in the tank and the gas recirculation system is configured to collect and return 80% or more of the carbon dioxide liberated by the aeration system.

7. (New) The reactor of claim 2 wherein one of the inlet or outlet is provided by the space between the lid and the tank.